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Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAM		NGINE IZES (L)	FUEL TYPE 1	STANDARDS & TEST PROCEDURE	INTENDED SERVICE	ECS & SPECIAL FEATURES 3	DIAGNOSTIC
2008	8CEXH0912	XAL	14.9	Diesel	Diesel	CLASS HHDD	DDI, TC, CAC, ECM, EGR, OC,	EMD
	'ENGINE'S IDLE NS CONTROL			AD	DITIONAL IDLE EN	ISSIONS CON	PTOX	
	30g	Engi	ne family 8	(BXL.719KCB-based)	APS exhausting	through the	after-treatment system of primary	
NGINE (	L)			ENGINE MOD	ELS / CODES (rat	ed power in	bal	engine.
14.9					nt for engine mo			
=not applic	cable; GVWR=gross	vehicle weight r	ating; 13 CCR	xyz=Title 13, California Code	of Regulations, Section	on xvz· 40 CER	R6 abortillo 40 Cada of Fada 45	
L/M/H H ECS=em catalyst; BI=throttle uper chargi entrol modi	nd - compressed rique DD=light/medium/he; nission control system DPF=dieset particula body fuel injection; ter, CAC=charge air ule; EM=engine mod	ined natural gas; avy heavy-duty on; TWC/OC=throide filter; PTOX= SFI/MFI=sequen cooler; EGR / E lification; 2 form	LPG=liquefied liesel; UB=urb; ee-way/oxidizin; eperiodic trap or tial/multi port fu GR-C=exhaust [[x]=porallel; [2]	petroleum gas; E85=85% et in bus; HD0=heavy duty Otto g calalyst; NAC=NOx adsorp didizer; HO2S/O2S=heated/o et injection; DGI=direct gasol gas recirculation / cooled EGI	hanol fuel; MF=multi o; tion celalyst; SCR-U xygen sensor; HAFS ine injection; GCARE R; PAIR/AIR=pulsed/	fuel a.k.a. BF= / SCR-N=select /AFS=heated/ai J=gaseous carb secondary air ir	86.abc≐Title 40, Code of Federal Regulations bi fuel; DF=dual fuel; FF=flexible fuel; ive catalytic reduction ~ urea / ~ ammonia; Wirfuel-ratio sensor (a.k.a., universal or finear ouretor; IDI/DDI≈indirect/direct diesel injection; iglection; SPL=smoke puff limiter; ECM/PCM=icombustion auxiliary power system; ALT=alte	U (prefix) =wam kygen sensor); TC/SC=turbo/

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in

in .	N.N.	HC_	N	Ox	NMH	C+NOx		:0	r——	PM T	<del></del>	
g/bhp-hr	FTP	EURO	FTP	EURO	FTP	EURO	FTP					НО
STD	0.14	0.14				LUNU	FIF	EURO	FTP	EURO	FTP	EURO
	0,14	0.14			*		15.5	15.5	0.01	0.01	*	-
FEL		_ •	1.25	1.25	1.2	1.2	*	*	*	0.01		ļ <u>.</u>
CERT	0.01	0.000	1.12	0.92	11	0.9	0.0	<del></del>				*
NTE		21			1.1	0.9	0.8	0.1	0.01	0.005	*	*
	<u>U.</u>	<b>4</b> I	1.	88	1	.8	19	).4		.02		<del></del>

g/bhp-hr=grams per brake horsepower-hour: FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle, including RMCSET=ram mode cycle supplemental emissions testing; NTE=Not-to-Exceed; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde; (Rev.: 2007-02-25)

**BE IT FURTHER RESOLVED:** Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: Except in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 35.B.4 of the incorporated "California Exhaust Emissions Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" adopted Dec. 12, 2002, as last amended Sep. 1, 2006, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed.

BE IT FURTHER RESOLVED: Engines in this engine family ("primary engines") may include the auxiliary power system (APS) described above for additional idle emissions control subject to the following stipulations. (A) Engine exhaust from the APS is routed directly into the exhaust system of the primary engine upstream of its diesel particulate matter aftertreatment device. And, (B) The manufacturer shall ensure that each primary engine so equipped with the APS is provided with an approved "Verified Clean APS" label to be affixed to the vehicle into which the primary engine is installed. The "Verified Clean APS" label shall conform to 13 CCR 2485(c)(3)(D) and section 35.B.4 of the incorporated "California Exhaust Emissions Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" adopted Dec. 12, 2002, as last amended Sep. 1, 2006.

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BE IT FURTHER RESOLVED: The listed engine models have been certified to the split engine family standards under 13 CCR 1956.8(b) [diesel engines] or 13 CCR 1956.8(d) [Otto engines] and the incorporated 40 CFR 86.007-15(m)(9).

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels) and 13 CCR 2035 et seq. (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models are conditionally certified pending submission of additional information to justify the auxiliary emission control device (AECD) used for engine protection. The manufacturer must demonstrate that the use of the AECD is the minimum strategy necessary for engine protection. The manufacturer has until March 31, 2008 to resolve concerns on this conditional certification. This Executive Order is effective through March 31, 2008; engines produced after the aforementioned effective date are deemed uncertified

**BE IT FURTHER RESOLVED:** The listed engine models are conditionally certified pending final approval of "Certified Clean Idle" and "Verified Clean APS" vehicle labels. The manufacturer has until March 31, 2008 to resolve concerns on this conditional certification. This Executive Order is effective through March 31, 2008; engines produced after this date are not covered by this Executive Order.

This Executive Order hereby supersedes Executive Order A-021-0471 dated January 18, 2008.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this

\_\_\_\_\_ day of March 2008.

Annette Hebert, Chief

Mobile Source Operations Division

## Engine Model Summary Template

525@1800         318         193         1850@1200         387         149         TC, PHOX. POM.           525@1800         318         193         1850@1200         367         149         TC, PHOX. POM.           525@1800         318         193         1850@1200         326         132         CAB_PTOX. POM.           500@1800         299         181         1850@1200         367         149         CAPTOX. POM.           500@1800         299         181         1850@1200         367         149         CAPTOX. POM.           500@1800         299         181         1850@1200         356         132         CAPTOX. POM.           450@1800         299         181         1650@1200         326         132         CAPTOX. POM.           450@1800         267         162         1750@1200         326         132         CAPTOX. POM.           450@1800         267         162         1750@1200         326         132         CAPA PTOX. POM.           450@1800         267         162         1750@1200         326         139         APA PTOX. POM.           26@1800         289         181         1850@1200         326         132         PTOX. POM.	2.Engine Model
193   1950@1200   367   149   7C, FLOX. PCM.     193   1550@1200   367   149   7C, FLOX. PCM.     193   1550@1200   326   132   CAS, PLOX. PCM.     193   1550@1200   367   149   CAS, PLOX. PCM.     193   1850@1200   342   139   CA. PLOX. PCM.     194   1850@1200   342   139   CA. PLOX. PCM.     195   181   1850@1200   342   139   CA. PLOX. PCM.     196   181   1850@1200   357   149   PLOX. PCM.     197   1850@1200   357   149   PLOX. PCM.     198   181   1850@1200   357   149   PLOX. PCM.     198   181   1850@1200   357   149   PLOX. PCM.     199   181   1850@1200   357   149   PLOX. PCM.     199   181   1850@1200   357   149   PLOX. PCM.     299   181   1850@1200   357   149   PLOX. PCM.     299   181   1850@1200   357   149   PLOX. PCM.     299   181   1850@1200   356   132   PLOX. PCM.     299   181   1850@1200   356   135   PLOX. PCM.     299   181   1850@1200   356   135   PLOX. PCM.     299   181   1850@1200   357   149   PLOX. PCM.     299   181   1850@1200   356   135   PLOX. PCM.     299   181   1850@1200   367   149   PLOX. PCM.     299   181   1850@1200   367   149   PLOX. PCM.     299   181   1850@1200   367   PLOX. PCM.     290   290   200	ISX 500 52
193   1650@1200   326   132   CAS PIOX. PCAN.     193   1650@1200   367   149   CAS PIOX. PCAN.     193   1650@1200   367   149   CAS PIOX. PCAN.     193   181   1650@1200   326   132   CAS PIOX. PCAN.     194   182   1650@1200   326   132   CAS PIOX. PCAN.     195   181   1650@1200   326   132   CAS PIOX. PCAN.     196   267   162   1550@1200   326   132   CAS PIOX. PCAN.     196   268   161   1850@1200   342   139   CAS. PCAN.     197   1850@1200   367   149   PTOX. PCAN.     198   181   1850@1200   367   149   PTOX. PCAN.     198   181   1850@1200   367   149   PTOX. PCAN.     199   181   1850@1200   367   149   PTOX. PCAN.     198   181   1850@1200   367   149   PTOX. PCAN.     188   189   189   189   PTOX. PCAN.     189   189   1	ISX 500ST 525@1800
00         299         181         1850@1200         367         149         €CA PTOX PGM.           00         299         181         1850@1200         387         149         €CA PTOX PGM.           00         299         181         1650@1200         326         132         CPA PTOX PGM.           00         287         162         1750@1200         326         132         CPA PTOX PGM.           00         267         162         1550@1200         326         132         CPA PTOX PGM.           00         267         162         1550@1200         326         132         CPA PTOX PGM.           00         267         162         1550@1200         326         132         CPA PTOX PGM.           00         267         162         1550@1200         367         149         PTOX PGM.           00         267         162         1650@1200         367         149         PTOX PGM.           0         289         181         1650@1200         356         149         PTOX PGM.           0         318         1650@1200         367         149         PTOX PGM.           0         299         181         1650@120	ISX 500 525@1800
00         299         181         1850@1200         367         149         CC_PIOX. PGM.           00         299         181         1650@1200         326         132         PJQK PIOX. PCM.           00         267         162         1750@1200         326         132         CFA-PIOX. PCM.           10         267         162         1550@1200         367         149         PTOX. PCM.           10         267         162         1750@1200         367         149         PTOX. PCM.           10         299         181         1850@1200         367         149         PTOX. PCM.           10         299         181         1650@1200         326         132         PTOX. PCM.           299         181         1650@1200         367         149         PTOX. PCM.           299         181         1650@1200	ISX 485ST 500@1800
2.53         161         1850@1200         367         149         OC PIOX PCM.           00         289         181         1650@1200         326         132         PYQK PIOX PCM.           00         267         162         1750@1200         342         139         €/A-PIOX, PCM.           10         267         162         1650@1200         326         132         ↓ PHOX PCM.           10         267         162         1650@1200         326         139         ♠/A-PIOX, PCM.           10         267         162         1750@1200         342         139         ♠/A-PIOX, PCM.           10         267         162         1750@1200         342         139         ♠/A-PIOX, PCM.           10         289         181         1850@1200         326         132         PTOX, PCM.           1         318         193         1850@1200         367         149         PTOX, PCM.           1         299         181         1850@1200         367         149         PTOX, PCM.           299         181         1650@1200         326         132         PTOX, PCM.           299         181         1650@1200         367	ISX 485 500@1800
289         181         1650@1200         326         132         PTOX, PCM, PCM, PCM, PCM, PCM, PCM, PCM, PCM	ISX 485 500@1800
267         162         1750@1200         342         139         Grav Prox, PcAr,           0         267         162         1550@1200         326         132         J Prox, PcAr,           0         267         162         1550@1200         298         120         FAA, PTOX, PCM,           0         267         162         1550@1200         342         139         AV, PTOX, PCM,           0         299         181         1850@1200         326         132         PTOX, PCM,           1         318         193         1850@1200         367         149         PTOX, PCM,           299         181         1850@1200         367         149         PTOX, PCM,           299	
267         162         1650@1200         326         132         LPHOX, PGM,           0         267         162         1550@1200         298         120         FMX PTOX, PGM,           1         289         181         1850@1200         367         149         PTOX, PGM,           299         181         1650@1200         367         149         PTOX, PGM,           318         193         1850@1200         367         149         PTOX, PGM,           299         181         1650@1200         367         149         PTOX, PGM,           299         181         1850@1200         367         149         PTOX, PGM,           299         181         1650@1200         326         132         PTOX, PCM,           289         181         1650@1200         326         132         PTOX, PCM,           289         181         1650@1200         367	
267         162         1550@1200         298         120         Fuk. PTOX. PCM.           0         267         162         1750@1200         342         139         AV. PTOX. PCM.           0         299         181         1850@1200         357         149         PTOX PCM.           1         299         181         1850@1200         367         149         PTOX. PCM.           299         181         1850@1200         326         132         PTOX. PCM.           299         181         1850@1200         367         149         PTOX. PCM.           299         181         1850@1200         367         149         PTOX. PCM.           299         181         1850@1200         326         132         PTOX. PCM.           299         181         1650@1200         326         132         PTOX. PCM.           298         181         1650@1200	
267         162         1750@1200         342         139         AV-PTOX, PCM, PTOX,	]
299         181         1850@1200         367         149         PLOM, PCM, PCM, PCM, PTOX, PCM	
299         181         1650@1200         326         132         PTOX, PCM.           318         193         1850@1200         367         149         PTOX, PCM.           318         193         1850@1200         326         132         PTOX, PCM.           299         181         1850@1200         367         149         PTOX, PCM.           299         181         1650@1200         367         149         PTOX, PCM.           299         181         1650@1200         326         132         PTOX, PCM.           299         181         1650@1200         367         149         PTOX, PCM.           280         170         1750@1200         348         141         PTOX, PCM.	
6         193         1850@1200         367         149         PTOX,           8         193         1850@1200         326         132         PTQX,           9         181         1850@1200         367         149         PTOX,           9         181         1850@1200         367         149         PTOX,           181         1650@1200         326         132         PTOX,           181         1650@1200         367         149         PTOX,           181         1650@1200         326         132         PTOX,           170         1750@1200         348         141         PTOX,	
8         193         1850@1200         367         149         PTGX, RCM,           3         1650@1200         326         132         PTGX, PCM,           181         1850@1200         367         149         PTGX, PCM,           181         1650@1200         367         149         PTGX, PCM,           181         1650@1200         326         132         PTGX, PCM,           181         1650@1200         367         149         PTGX, PCM,           181         1650@1200         326         132         PTGX, PCM,           170         1750@1200         348         141         PTGX, PCM,	ISX 500ST 525@1900
8         193         1650@1200         326         132         PTØX, PCM,           9         181         1850@1200         367         149         PTØX, PCM,           1         181         1650@1200         326         132         PTØX, PCM,           1         181         1650@1200         367         149         PTØX, PCM,           181         1650@1200         367         149         PTØX, PCM,           181         1650@1200         367         149         PTØX, PCM,           170         1750@1200         348         141         PTØX, PCM,	
181         1850@1200         367         149         PTDX, PdM,           181         1850@1200         367         149         PTOX, PCM,           181         1650@1200         326         132         PTOX, PCM,           181         1850@1200         367         149         PTOX, PCM,           181         1650@1200         326         132         PTOX, PCM,           170         1750@1200         348         141         PTOX PCM,	ISX 485ST 500@1800
181         1850@1200         367         149         PTOX.           181         1650@1200         326         132         PTOX.           181         1850@1200         367         149         PTOX.           181         1650@1200         326         132         PTOX.           170         1750@1200         348         141         PTOX.	
181         1650@1200         326         132         PTOX,           181         1850@1200         367         149         PTOX,           181         1650@1200         326         132         PTOX,           170         1750@1200         348         141         PTOX	
181         1850@1200         367         149           181         1650@1200         326         132           170         1750@1200         348         141	
181         1650@1200         326         132           170         1750@1200         348         141	
170 1750@1200 348 141	
	107 40001 478@1800